System for transmitting Desired Digital Media and Audio signals in a 3-Dimesional Holographic format via computer network

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What is claimed is:

1. A system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format having at least one custom configured video server including a digital video data storage device for storing digital video data and a streaming unit reading the digital video data from the digital video data storage device to perform a digital video streaming process on the digital video data, said system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format providing a subscriber with a 3-Dimensional digital video-on-demand service at a request from the subscriber, comprising:

a custom management unit managing the process of each digital video server and determining if spare capacity exists on the digital video server;

a full screen digital-video-on-demand service with no downloading or buffering unit providing a requested digital video data through a full screen digital video-on-demand service which broadcasts the digital video data stored in the digital video data storage device along through high speed telecommunication signals, wherein the 3-Dimensional holographic digital video data is played upon a request of the subscriber;

a service switch determining unit which determines, upon receipt of a request, to watch the selected digital video from the subscriber, whether a selection of the requested video is to be streamed in the full-video-on-demand service or to be downloaded by the distributor of the digital content, depending on management information managed by said custom configured digital video/content server or whether spare capacity exists on the client end user.

a broadcast unit broadcasting the requested live digital video by said full-video-on-demand service providing unit for the subscriber according to a determination result from said service switch determining unit.

2. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, wherein

said load state management unit manages a number of digital video/content programs being processed by each digital video server; and

said service switch determining unit switches a service for the subscriber from the full-video-on-demand service to the broadcast-on-demand service when the requested broadcast is newly broadcasted and the number of the video programs managed by said load state management unit exceeds a predetermined bandwidth.

3. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, wherein

said load state management unit manages a number of video programs being accessed by the streaming unit in each video server and stored in the video data storage device; and

said service switch determining unit switches a service for the subscriber from the full-video-on-demand service to the broadcast-on-demand service when the requested video is newly broadcast and the number of the video programs managed by said load state management unit exceeds a predetermined bandwidth.

4. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, wherein

said load state management unit manages the number of current subscribers to each video whose data is stored in the digital video data storage device in each custom video server; and

said service switch determining unit switches a service for the subscriber from the full-video-on-demand service to the live broadcast-on-demand service when the requested video is newly broadcast and the number of the subscribers managed by said load state management unit exceeds a predetermined threshold.

5. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, further comprising:

a subscriber number management unit managing a number of subscribers watching the live broadcast-on-demand service each video whose data is stored in the digital video data storage device in each video server, wherein

said broadcast unit stops broadcasting the video according to management information managed by said subscriber number management unit when it is determined that no subscriber is watching the video being broadcast in the live broadcast-on-demand service.

6. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, further comprising:

a title/author selection control unit providing an interactive inputting operation for selecting a title of a video or media content requested and displayed on a monitor of a receiving terminal device on a subscriber side in a same format in the full-video-on-demand service and the live broadcast-on-demand service.

7. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, further comprising:

a subscriber storage unit storing a list of subscribers when a video is to be broadcast after being switched to the broadcast -on-demand service by said service switch determining unit and when another subscriber issues a request to watch the video during the actual broadcast of the video after switching to

the live broadcast-on-demand service, wherein

said broadcast unit provides said list of subscribers stored in said subscriber storage unit with the video in the live broadcast-on-demand service.

8. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 7, wherein

said subscriber storage unit stores the list of subscribers in the order in which requests are received.

9. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, further comprising:

a subscriber-demand-by-title storage unit receiving service switch information from said service switch determining unit and storing the number of subscribers of a video whose data is stored in the video data storage device of each digital video server separately for the full-video-on-demand service and the live broadcast-on-demand service.

10. A system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format having at least one digital video server including a digital video data storage device for storing digital video data and a streaming unit reading the digital video data from the digital video data storage device to perform a video streaming process on the digital video data, said system for transmitting desired digital media and audio signals in a 3-

Dimensional holographic format providing a subscriber with a full screen digital video-on-demand service with no downloading or buffering at a request from the subscriber, comprising:

a load state management unit managing a load in a process of each digital video server and determining if spare capacity exists on the digital video server;

a full-video-on-demand service providing unit providing a requested digitalvideo data through a full-video-on-demand service which broadcasts the digital video data stored in the digital video data storage device through high speed telecommunication signals, wherein the broadcasted digital video data is played upon in a 3-Dimensional holographic format by the request of the subscriber;

a live broadcast-on-demand service providing unit providing said requested digital video data through a live broadcast-on-demand service which broadcasts the digital video data stored in the digital video data storage device along high speed telecommunication signals at predetermined time intervals;

a first service switch determining unit determining, upon receipt of a request to watch a video from the subscriber, whether a broadcast of the requested video is to be serviced in the full-video-on-demand service or the live broadcast-on-demand service depending on management information managed by said load state management unit including whether spare

capacity exists on the custom configured digital video server as determined by said load state management unit;

a second service switch determining unit determining, upon receipt of a request to download a video from the provider, whether a broadcast of the requested video is to be downloaded by the specific user

a broadcast unit broadcasting the requested video by said full-video-on-demand service providing unit or said live broadcast-on-demand service providing unit to the subscriber according to a determination result from either said first or second service switch determining unit.

11. The system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format according to claim 1, further comprising:

a service information broadcast unit broadcasting various service information to the subscriber after switching by said service switch determining unit a broadcast of a video from the full-video-on-demand service to the live broadcast-on-demand service until an actual broadcast of the video starts.

12. A system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format, comprising:

determining, at a request from a subscriber for a full video-on-demand service, whether or not video data can be provided in a full-video-on-demand service which broadcasts the digital video data stored in the digital video data

storage device along high speed telecommunication signals, wherein the broadcasted digital video data is played upon a request of the subscriber; and

providing the subscriber has the capabilities to have the proper bandwidth in order to retrieve the desired full digital video-on-demand service.

13. A system for transmitting desired digital media and audio signals in a 3-Dimensional holographic format to transmit video programs to subscribers having at least one digital video server, comprising:

a load state management unit to determine a load and whether any excess capacity exists on said video server by monitoring the number of video programs being streamed and the number of subscribers viewing each of the video programs being delivered;

a full-video-on-demand service providing unit providing a requested digital video data through a full-video-on-demand service which broadcasts the video data stored in the video server along a high speed telecommunication signal wherein the broadcasted video data is played upon a request of a subscriber;

a live broadcast-on-demand service providing unit providing said requested digital video data through a live broadcast-on-demand service which broadcasts the digital video data stored in the digital video server along plural channels for live video on demand at the predetermined time;

a broadcasting unit to transmit the live video program immediately along the one channel for full digital video on demand when said service switch determining unit determines to provide the live video program via the full-video-on-demand service and to broadcast the video program in the time period, the said service switch determining unit determines to provide the video program in the live broadcast-video-on-demand service.

14. A method of distributing digital video data over a digital video server, comprising:

receiving a program request from a subscriber;

determining whether spare capacity exists on the video server to deliver the program requested to the subscriber in full screen 3-Dimensional holographic video on demand;

transmitting a requested digital video data, corresponding to the program, stored in the video server immediately to the subscriber along one channel for full screen 3-Dimensional holographic video on demand when spare capacity exists on the video server of the subscriber;

informing the subscriber of a viewing time for the program in live broadcast-on-demand when spare capacity does not exist on the video server of the subscriber, the viewing time included in plural viewing times separated by corresponding predetermined time intervals;

determining if the subscriber agrees to receive the program at the viewing time in near video on demand when spare capacity does not exist on the video server of the subscriber; and broadcasting said requested video data stored in the video server along plural channels for near video on demand upon arrival of the viewing time when the subscriber agrees to receive the program in near video on demand at the viewing time.

15. A method of receiving digital video data to the digital video server through high-speed telecommunication signals comprising;

an automatic retrieving system that allows the digital video content to be received through the data network and to be accounted for by the distributor connecting to its dedicated server.

A system that acknowledges the digital video being transferred and stored onto its dedicated server with time stamp and date received.

16. A system that counts the amount of digital videos being received by the distributor comprising;

A system that holds and stores in digital data formats such as megabytes to gigabytes, to acknowledge the distributor of the amount of server space that

has been accepted and stored on the digital video server that is dedicated to the individual distributor.

17. A system that stores and sends 3-Dimesional holographic digital video data to be streamed to the subscriber through the use of high-speed telecommunication signals connected into the digital video server and network.